NASA PRINCIPAL CENTER FOR REGULATORY RISK ANALYSIS AND COMMUNICATION

RRAC PC Overview
NASA Energy and Environmental Conference

Presentation Prepared by:
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Manager
RRAC Principal Center
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Agenda

- **Principal Center History**
- **Overview of the Principal Center for Regulatory Risk Analysis and Communication (RRAC PC)**
  - Roles and Responsibilities
  - Products Provided
  - Regulatory Tracking Process
  - Communications
  - Successes
  - Lessons Learned
  - Future

History

- **Clean Air Act (CAA) Principal Center**
  - Established ~ 2000
  - Mission
    - *Provide centralized information in support of NASA's CAA-related regulatory stakeholder activities*
  - Products
    - *Regulatory updates to Centers as new regulations emerged*
    - *Monthly telecons with Center air program managers*
  - Evolution
    - *CAA PC became a resource for sharing multimedia regulatory information*

History (*continued*)

- **Evolution from CAA PC to RRAC PC**
  - NASA HQ Environmental Assurance initiative recognized the need to have a broad-based Agency-level environmental regulatory resource
  - HQ expanded the role of the CAA PC in 2007
    - *Renamed CAA PC to RRAC PC to reflect expanded scope*
  - RRAC PC scope now includes acting as the Agency-wide resource for identifying, analyzing and communicating regulatory change in all media
- **RRAC PC Organization**
  - Manager - Sharon Scroggins
  - HQ Lead - David Amidei
  - Support Contractor - CH2M HILL

RRAC PC Primary Roles

- **Provide centralized support to HQ Environmental Management Division (EMD)**
  - Lead NASA's regulatory change management process
    - *Review emerging regulations*
    - *Track materials obsolescence drivers*
  - Regulatory impact evaluation and communication
  - RRAC communication process serves as an operational control for both high and medium aspects in the NASA HQ EMS
  - Provide a bridge between HQ Policy and HQ level action among regulators and the implementers at the Centers
- **Interface to NASA Programs for regulatory risk analysis and interpretation**
- **Represent NASA interests to regulatory agencies**
  - Provide expert technical guidance to EPA on regulatory risks to Program hardware and support facilities during rulemaking efforts
  - When necessary, work with NASA Programs and Facilities to seek regulatory relief

RRAC PC Focus in Perspective

Risks posed *by* the Program / Facility to the environment

- Identified under NEPA through the assessment and documentation process
- The NEPA document describes options and addresses environmental considerations associated with each, usually in a one-time effort

Risks posed *to* the Program / Facility by environmentally-related drivers

- On-going effort through the life of the Program or Facility
- Risk grows with time due to changes in laws and regulations
- Active participation in legislative and rulemaking processes reduces risks to NASA Programs / Facilities

Regulatory Change Can Drive Program and Facility Risks

Changing regulations have the potential to affect Program and Facility activities directly and indirectly

- **Could restrict certain activities, operations, or right to operate**
  - Changes in operational activities
    - *High-efficiency spray equipment*
    - *Quantities of thinner allowed for coating application*
  - Limitations on where or how operations can take place
    - *In spray booths rather than "in the field"*
    - *Require dipping or brushing instead of spraying*
  - Changes to personal protective equipment requirements
- **Could affect availability and usage of materials**
  - Production phase-out or restriction on ability to apply or use materials
    - *ODSs, brominated flame retardants, and others*
  - Formulation changes by vendors to critical materials and/or components
    - *Despite contractual notification clauses, can happen without notification*
  - May require material replacement efforts
    - *Replacement costs; potential schedule impacts; potential performance variance*

RRAC PC Products and Services

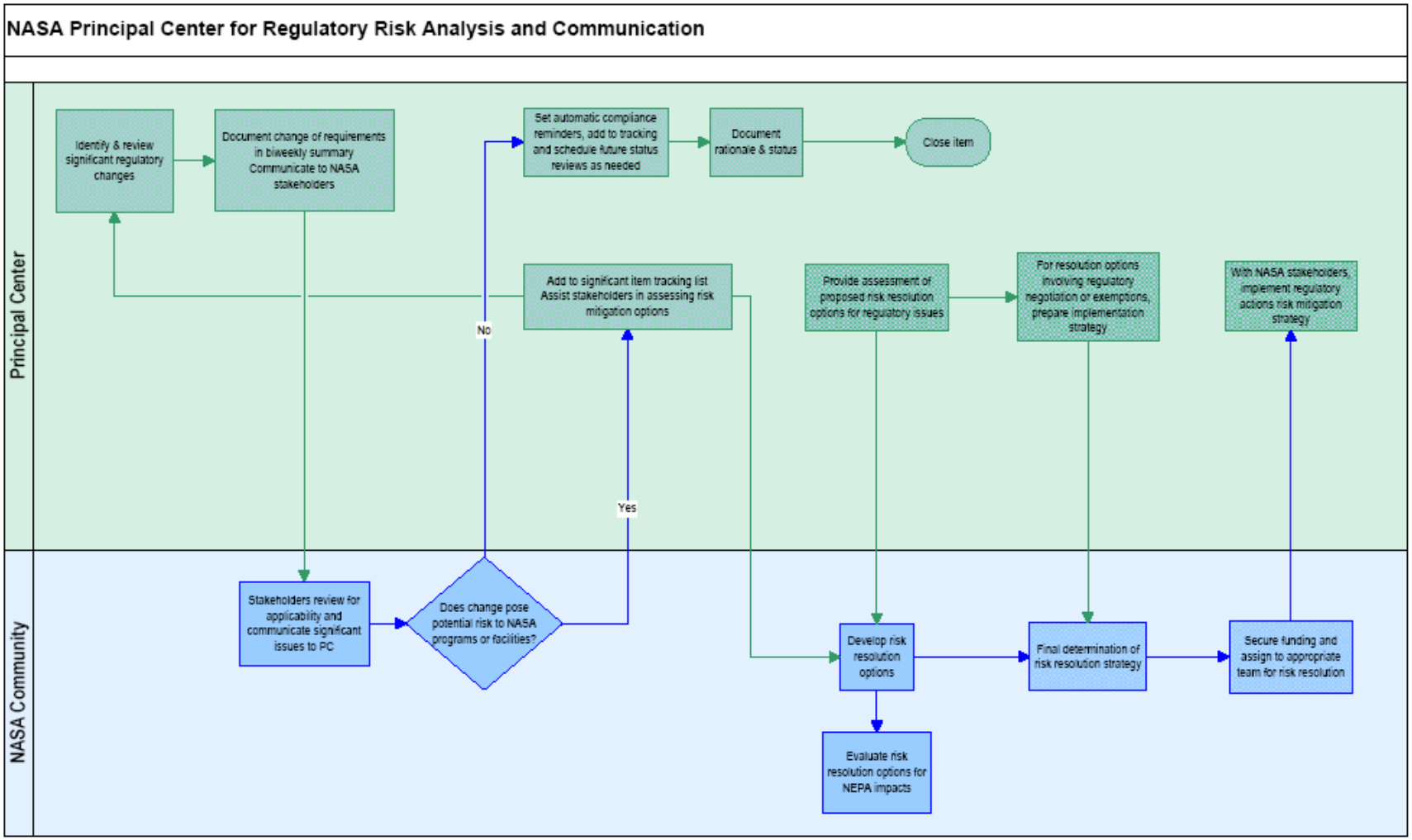
- **Regulatory Support for Materials and Operations**
  - Identify, analyze and communicate potential environmental risks (SSP and Cx)
  - Support Space Shuttle Environmental Assurance (SEA) Team
  - Support Ares and Orion design engineering
- **Rulemaking Activities**
  - Collaborate with EPA regarding emerging regulations with potential adverse programmatic impacts
    - *NESHAPs, such as the Defense Land Systems and Miscellaneous Equipment (DLSME) National Emission Standards for Hazardous Air Pollutants*
    - *Stratospheric Ozone regulations, such as negotiations to allow continued access to mission-critical Ozone Depleting Substances (ODS)*
  - Participate in stakeholder technical working groups
- **ODS Coordination**
  - Cx and SSP HCFC 141b exemption support
    - *Exemption Petitions & Annual Renewal, when needed*
    - *Semiannual HCFC 141b Usage Report*
  - Annual NASA Agency ODS progress report (replacement activities)

RRAC PC Products and Services *(continued)*

- **Environmental Regulatory Analysis and Monitoring**
  - Monitor emerging regulations
    - *Federal and 11 States*
    - *Report on a bi-weekly basis*
  - Develop regulatory alerts, summaries, and updates on significant issues with potential NASA impact
  - Prepare agency wide comments to proposed environmental rules
  - Facilitate and document regulatory change management activities

- **Lead Clean Air Act Working Group (CAAWG)**
  - Provide a forum for communicating environmental changes
  - Website and monthly teleconferences are used for communication
  - Face-to-face meetings

RRAC PC Regulatory Change Support
"Swim Lanes"



RRAC PC Future Initiatives

- **Continue to provide the NASA community multimedia environmental alerts**
- **Maintain an understanding of the environmental requirements and goals for each Center**
  - Obtaining up-to-date ERDs*, environmental tracking matrixes, etc. to verify the RRAC PC is monitoring regulations that potentially apply to Center operations.
  - Potential site visits to each Center

*ERD = Environmental Resources Document

RRAC PC Future Initiatives (*continued*) Regulatory Highlights

- **Climate Change**
  - GHG Inventory and Management
  - Emerging legislative actions
  - CAA Climate Change-related actions
  - Impacts from international climate change treaties
- **Groundwater/Drinking Water**
  - Emerging regulatory and legislative actions on perchlorate, trichloroethylene, and other chemicals
- **Hazardous Air Pollutants**
  - Review and modification of existing Part 63 NESHAP requirements
- **Impacts from European Regulations**
  - REACH*
  - RoHS**
- **Support for unfunded liabilities assessments**
- **NAAQS Modifications**
  - Changes to ozone standard means changing nonattainment areas and possible impacts to Programs and Facilities
- **Stratospheric Ozone**
  - Program and Facility impacts from continuing ODS phase-out
  - Continuing use of mission-critical ODS

*REACH = Registration, Evaluation, Authorization and Restriction of Chemicals
**RoHS = Restriction on Hazardous Substances

RRAC PC Lessons Learned

- **Programs and Centers are dynamic… so are regulations**
  - Just because regulations may not initially apply does not mean they will not in the future
  - Just because regulations may not directly affect operations does not mean they won't affect the program indirectly through the supply chain
- **Communication is key when it comes to regulatory impacts**
  - Up and down the chain of command to ensure the right organizations and people are informed
- **Maintaining a "do the right thing" commitment is critical to the long-term success of programs and should be a significant part of a strategy for compliance**

Questions?

- **For further information, please contact:**

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You Are Invited!

Clean Air Act Working Group Meeting

9:00 am Tomorrow

Wyeth Room